'I HEAR DEAD PEOPLE'

Forensic archaeologists listen to voices that speak across time

By Mike Tharp

Dead men *can* tell tales.

That's what forensic archaeologists, in the District and worldwide, have discovered. From Civil War battlefields to Bosnian mass graves, from FBI cases to Vietnam War MIAs, these specialists have solved mysteries of the human body and soul by applying science to the graveyard.

North of Hanoi, Rod McLean stands near an arrow pinpointing remains of an American pilot shot down 30 years before, in 1967.

In past years, District archaeologists Rod McLean and Steve Dibble have both assumed forensic functions by helping to find and recover the remains of American servicemen in Vietnam and Laos. McLean went overseas in 1997, and Dibble made three trips to Indochina for the U.S. Army Central Identification Laboratory, Hawaii.

In a 1998 article for *The Newscastle,* McLean wrote**:** "The Vietnamese told the truth. My team leader and noncommissioned officer in charge supported me every inch of the way….They, like me, view this not just as a military operation, but as a kind of sacred duty. We were all bound together by the idea that if we had a father, brother, husband or some other relative missing in action, we would want someone to look for them."

Dibble, for his part, visited Vietnam in 1996 and 1998 and Laos in 1999. In Vietnam, fleabag hotels were available for the team, but much more primitive conditions prevailed in Laos, which had been heavily bombed by U.S. aircraft. Dibble and his colleagues stayed at a regularly used base camp, driving out to crash sites to look for remains. At one, they pulled socks, bone and other artifacts from the wreckage and ground to confirm that a pilot had gone down with his plane. In his experience as an archaeologist, Dibble says those three trips "obviously were No. 1—and the most important."

In the former Yugoslavia, forensic archaeologists have worked for the Croatian and Bosnian governments, as well as for United Nations tribunals. Their excavations are "ongoing homicide investigations," according to an article by archaeologists Melissa Connor and Douglas Scott of the Midwest Archeological Center. Forensic archaeologists have exhumed thousands of bodies from mass graves dating from the civil war, and their evidence "will be used by the courts in the prosecution of those accused of genocide and war crimes."

Back home, forensic archaeology has been applied to the discovery, identification and recovery of American Indian burial and cultural sites. Criticized in the past by some tribal activists as "grave robbers," forensic archaeologists today take a much more diplomatic approach toward these sites. They must leaven research with compassion.

"With increased federal and state legislation providing for the reburial and repatriation of human skeletal collections to their appropriate descendants, archaeologists and anthropologists have struggled with the ethical questions of balancing the respect for traditional belief systems of specific peoples toward their dead and the interests of humanity through science," wrote David A. Poirier and Nicholas F. Bellantoni in a recent issue of Cultural Resource Management magazine.

Clipboard in hand, Steve Dibble in 1999 records the findings of two sergeants at a U.S. aircraft crash site in Laos. They measure a grid.

As Dibble and McLean will attest, the past sometimes speaks loudly to the present. And forensic archaeologists are there to listen.

The Newscastle

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ARCHAEOLOGY:

Encyclopædia Britannica: ***(also spelled archeology)*** **the scientific study of the material remains of past human life and activities. These include human artifacts from the very earliest stone tools to the man-made objects that are buried or thrown away in the present day: everything made by human beings—from simple tools to complex machines, from the earliest houses and temples and tombs to palaces and cathedrals.**

Cal State LA's student moves forward by looking back. **Lydia Lopez-Cruz, an archaeology student trainee in the Los Angeles District's Planning Division, uses a screen to find archaeological artifacts.** **(See P. 3)**

'The past isn't over. It isn't even the past.'

--Nobel Prize-winning novelist William Faulkner

For more than 22 decades, the U.S. Army Corps of Engineers has been known for many things. Building dams and bridges. Supporting the U.S. military in war and peace. More recently, for protecting environmental treasures.

It hasn't been known for archaeology.

But, as the Southern Pacific Division shows, it should be.

From digging through 10,000-year-old fire pits to deploying satellite imaging technology, Division archaeologists have been advancing the frontiers of scientific knowledge. Years of academic and practical experience have repeatedly paid rich dividends at project sites across four Western states. Vital cultural resources have been discovered, identified, catalogued and preserved by Corps archaeologists.

Their science is also informed with compassion. Two L.A. District team members have made a total of four trips to Indochina, searching for remains of American soldiers and fliers in the jungles and mountains of the war-torn region. They—and other Division archaeologists—have won awards from the Department of the Army and other agencies for the contributions above and beyond.

Moreover, like 21st century Johnny Appleseeds, Division archaeologists have cross-pollinated the profession. Several prominent archaeologists in academia, other federal agencies and the private sector got their start in the Division. And Division team members have been generous in sharing their time and expertise with thousands of students over the years, preparing a whole new generation to follow them along the ancient path of knowledge.

Division archaeologists have worked closely with some of their preeminent counterparts nationwide. Two examples: Dr. Michael Waters, professor of archaeology at Texas A&M University, is one of the field's most respected members; he has signed on to work with L.A. District at the Tres Rios project in Arizona. Elsewhere in Arizona, Tucson-based Statistical Research Inc., a highly regarded archaeological research firm, has been a contractor on several key Corps projects, authoring numerous reports that have become valuable assets for an audience well beyond the Corps constituency.

Unlike a certain movie character played by Harrison Ford (whose name no Division archaeologist wanted in this special section), our archaeologists are modest men and women. They hide their bright professional lights under a bushel of nonchalant non-publicity, content to perform their Corps missions and earn respect from their peers. It was tough to get them to talk about themselves, but when they did, the results were astonishing.

Quietly, sometimes subtly, our archaeologists are making history by finding it. Analyzing it. Recording it. Saving it. In the process, they are following the lead of Chief of Engineers LTG Bob Flowers who declared his intentions in his 2001 White Paper: "I reaffirm our strong commitment to produce unbiased recommendations consistent with law, regulations and science….We seek to partner with stakeholders and to build relationships that serve the public interest."

Our Division archaeologists are doing just that.

We hope you will enjoy and benefit from reading about them and their missions.

Commander . . . . . Col. Richard G. Thompson

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who have gone on in archaeology, some employed directly at the Corps, others by contractors."

Of nearly 530 sites on San Nicolas Island, archaeologists and students have excavated 10% to 12% of them, Dr. Martz estimates. The digs reveal settlement patterns, when the sites were occupied, how the inhabitants subsisted, and many interesting artifacts have been uncovered. One, says Dr. Martz, is a 10-inch tall effigy of an elephant seal made of steatite, which was imported from Santa Catalina Island.

Dr. Patricia Martz

(The seals, other aquatic mammals and fish comprised the islanders' main diet.) Fire pits, hearths, shell beads, fish hooks, pollen and other figurines also have been unearthed, as well as mounds of fish bones and other detritus.

Dr. Martz and E. Jane Rosenthal, formerly of Statistical Research Inc., a prominent Corps contractor, wrote a 1999 paper on the hunter-gatherers of San Nicolas. In contrast to such established Indian names as Chumash and Gabrieleno, District and other archaeologists prefer to call the island's inhabitants *Nicoleno.* "Our unexpected results indicate that the island was continuously occupied for 7,000 years," they concluded. The Nicoleno "looked to the sea for survival, taking advantage of its bounty, and became California's most maritime society."

They also left unusual rock art—petroglyphs and pictographs—discovered in a small seaside cave. "It's very different from what you see in desert areas, with their geometric patterns, or with the very colorful (art) of the Chumash," says Schwartz. "The San Nicolas art shows very naturalistic animals, with movement to them, a very different style."

For years the island also has served as an instrumentation site, testing ground and landing base for the Navy. Only in July, for instance, the Navy and Raytheon conducted a submarine launch of a tactical Tomahawk missile with a live warhead. Overall, archaeologists say, they haven't had to make many accommodations with the military over use of the island because most of the Navy's activities have been offshore.

Onshore, the island presents an often bleak landscape. Wind gusts whip up mini-sandstorms, fog shrouds most mornings and cold temperatures drape its steep cliffs and plateaus. Initially, archaeologists and students camped out and roughed it, but now they live in Navy barracks during their springtime research.

Perry, Schwartz, Martz and others believe the Nicolenos fell victim to a terrible drought, which also hurt the entire southwest mainland, as well as disease introduced by the first European settlers.

Before they disappeared, they created a unique artistic legacy: highly decorated artifacts. In contrast to plainer tools and remnants from other California Indian tribes, the Nicoleno added a bit of cross-hitching here, a curved line there, to their pots, jugs and other tools. Schwartz suggests it was because "getting food was easy for them and they probably had a lot of spare time on their hands."

He further theorizes that bad weather forced them into their caves and dwellings where "everybody just hunkered down and entertained themselves. They'd take some simple pot and add decorations to it."

The harsh climate also probably made the Nicoleno story-tellers, passing stormy days and nights with elaborate tales of their forebears and culture. Today, thanks to the efforts of District and Division archaeologists and their protégés, those stories are re-told in the 21st century.

Perry shows students how to square off a sensitive excavation on the island.

'Archies' unveil treasure trove on San Nicolas Island

By Mike Tharp

The Island of the Blue Dolphins is helping to challenge one of archaeology's oldest theories.

San Nicolas Island is one of the Channel Islands about 75 miles west of the Southern California coast. It was the fictionalized site of Scott O'Dell's 1961 prize-winning novel about an American Indian girl stranded on an island for 18 years. In real life, San Nicolas for decades has been a treasure-trove of archaeological research. Isolated, fog-bound, wind-swept and wave-worn, the desert island has preserved relics from at least 10,000 years of human habitation.

Today, thanks to efforts by Division archaeologists—who have helped the seminal work of distinguished L.A. District alumni--San Nicolas is surrendering artifacts that suggest an alternative explanation of how the first people who came to North America settled the continent. Historically, it's been believed that North Asian migrants crossed a Siberian land bridge over what's now the Bering Sea and trekked into the Americas.

Dates and routes are disputed within the scientific community, but the broad outlines of the prehistoric diaspora seemed clear: Between 17,000 and 13,000 years ago, early humans moved into what is now Alaska and headed south and then east. The famous Clovis, N.M., archaeological site has revealed evidence of settlements around 13,600 years ago, indicating the migration made it that far south.

But the San Nicolas discoveries point to at least two other possibilities. One is that some early humans ventured south—not strictly by following large mammal herds through grassy inland plains—but by hugging the coastline all the way to present-day southern California, populating offshore islands as they migrated. The other is that nomadic explorers may have landed on the islands by boat from across the Pacific. "In lieu of traditional theories of people coming to America, there's high potential for trans-Pacific contact from areas south or southwest of San Nicolas Island," says Richard Perry, an archaeologist with Sacramento District's Environmental Analysis Section. "Maybe people are coming from the South Seas."

San Nicolas, measuring only 14 by 5 kilometers (8.7 by 3.1 miles), is an especially fertile study area. Apart from some 50,000 sheep, there's been almost no development on the island and few roads to churn up the topsoil and sediment. As a result of such pristine conditions, "we're finding some of the earliest sites in North America out on that island," says Steve Schwartz, now an environmental protection specialist and archaeologist with the U.S. Navy who worked at the District 1980-89. "Most date back at least 10,000 years. That calls into question the whole concept of how America was inhabited."

If the Siberian land bridge theory is the only one that applies, Schwartz explains, "there shouldn't have been anybody on the coast of California 10,000 years ago. We wonder if an earlier group of people came down, hugging the coastline, sailing to the islands to hunt sea mammals. It gives a whole different aspect to North American archaeology."

Dig it: **Richard Perry and student archaeologists search for *Nicoleno* tribal relics on San Nicolas Island.**

Perry, who started with the Corps in 1989, has been instrumental in supporting the Archaeology Field School, whose students have dug holes, sifted sand and found artifacts on the island. Working with California State University/Los Angeles professor of archaeology Patricia Martz, herself a former Corps archaeologist, Perry has helped mentor nearly 400 students over a dozen years. Last year he won a Dept. of the Army Certificate of Appreciation for Civilian Patriotic Service for his work with the school.

"Richard and Rod (McLean, also a District archaeologist) contributed to the school every year," says Schwartz, who is also head of the Environmental Dept. for San Nicolas Island. "They've trained a lot of students

Cal State LA's Lopez-Cruz moves forward by looking back

By Mike Tharp

Throughout their 2,000-year-old history, the Yaqui Indians have been known for their indomitable spirit, refusing to surrender their traditional ways to other tribes, Spanish and Mexican armies, even a U.S. Cavalry troop in 1918. Although their numbers dwindled in their native state of Sonora, Mexico, they kept their tribal integrity. They even became famous as divers, retrieving precious black pearls from the Sea of Cortez.

All of which might go a ways to explaining why *Lydia Lopez-Cruz* is now an archaeologist student trainee in the District. She believes there's Yaqui DNA on her mother's side of the family, and her academic commitment to archaeology is at least partly based on her genetic roots.

"When I was taking Native American classes (in college), I was fascinated to learn how they existed, how they functioned, to learn about their social and political structure," she recalls. "Those classes made me look into archaeology."

Sifting for ancient clues: **Lydia Lopez-Cruz, right, and fellow student Juana Becerra represent the future of archaeology.**

The first person in her family to graduate from high school, let alone college (Cal State L.A.), Lopez-Cruz is now completing her master's degree at the university. She's worked at the District for about two years, most of it part-time, and praises the education she's gotten from the Corps. "It's wonderful that a federal agency does archaeology," she says. "There isn't much money available to work on archaeology, but because the Corps of Engineers has to comply with the National Historic Preservation Law and others, a lot of archaeological opportunities come up."

So far she's handled permitting projects and a few civil works projects, including a flood control project in Flagstaff, Ariz., which has taken her to that city. "While I'm here, I want to learn as much as I can about every aspect of archaeology," she says. "I'd like to take on a few of each kind of project, including military and civil works."

Her master's thesis will be devoted to some of the research she's been conducting on San Nicolas Island, one of the Channel Islands, in conjunction with the U.S. Navy. She's been dealing with such cultural resources as an Indian village site and shell middens, which are where the ancient inhabitants dumped their shellfish shells. Just as her own ancestors found pearls in oysters, Lopez-Cruz discovers glimpses into those old societies from such remnants.

On the island she and her colleagues have found fish hooks, shell beads, basketry material, hearths, burials, ornaments and tools made of stone, bone and shell. The material is studied on the island and at the university lab on campus by CSULA students or by any qualified archaeologist, as long as the Navy approves the research design. "The archaeological material reveals subsistence and settlement patterns, types of fish and shellfish they ate, reasons why they preferred one type over another and their nutritional value by doing a dietary analysis," she explains.

For this young woman, archaeology tells modern societies much about their prehistoric and historic predecessors. "There are some peoples whose histories weren't written down, and archaeology helps preserve that record," she says. "And sometimes history doesn't tell the whole story. In the 1800s, for example, much of the writing was about the aristocracy of the time, and there wasn't much about slaves or immigrants. This version should be told. Archaeology provides a holistic view of society."

She credits Dr. Pat Martz, her professor and thesis adviser at Cal State L.A., for being an inspirational motivator. It also helped both Lopez-Cruz and the District that Dr. Martz formerly worked at the Corps and guided her student to the downtown office.

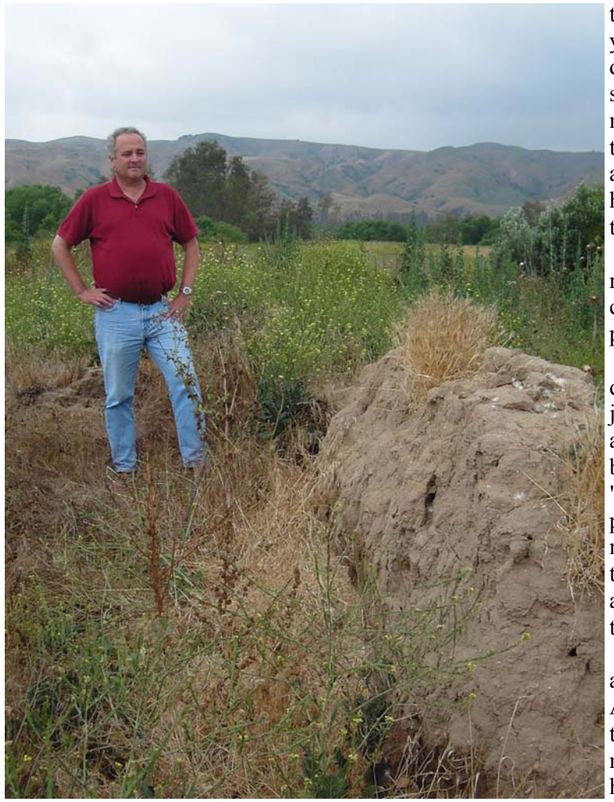
Future goals? "I would like to stay with the Army Corps of Engineers and continue the work I'm doing here. I'm learning so much about different regions, different tribes, our own laws, and I find it all fascinating. Archaeology ties it all together."

Behind Prado Dam,

Archeologist Dibble preserves centuries of heritage for future generations to see

By Mike Tharp
Photo by Fred-Otto Egeler

Like Patton striding through the ruins of Carthage, District Senior Archaeologist *Steve Dibble* steps through thick thistles along the waist-high mud revetments. In the 1840s, these adobe walls near present-day Chino stretched two stories tall and enclosed one of the finest haciendas in southern California. "This is what's left," he says over the westerly breeze. "You can just imagine being out here when people lived in it-no other buildings, nobody."



Steve Dibble stands at what used to be an exterior wall of the 19th century Bandini-Cota Adobe near Prado Dam.

Today, after decades of exposure to rain, wind and sun, what was once the elegant Bandini-Cota home is little more than a Proustian remembrance of things past. Which is just the way Dibble likes it.

Since he joined the L.A. District in 1987, Dibble has kept one steel-toed boot firmly rooted in the mists of history, the other poised on the brink of whatever 21st century project the District is managing. Like his archaeological colleagues in the District and Division, Dibble scientifically straddles ancient and modern eras to ensure that Corps projects comply with laws preserving the nation's heritage.

The Bandini-Cota adobe is part of what the District calls "the hidden history of Prado Basin." Over the years, Dibble and his archaeological colleagues have discovered and protected several other artifacts-some stretching back nearly 5,000 years to when the first humans apparently came a-hunting in the area. Most of the artifacts are of much more recent vintage-a century and a half or so-but all 22 prehistoric sites and 200-plus historic sites show the Corps commitment to keeping them safe.

"We thought it was just an historic site," Dibble recalls, "and ranching has been here since the early 20th century. But when we did test excavation, we found prehistoric remains up on a little rise."

Beginning in the early 1980s, when the Corps decided to raise Prado Dam by 25-plus feet (a project just now getting underway), the District contracted an archaeological team to sift through the land that would be affected. By the mid-'80s, what Dibble calls "magnetic anomalies" had been discovered by using a proton magnetometer, which measures the intensity of a magnetic field. "We had archaeological evidence that there might be a cemetery," he recalls. "There might be as many as 90 or as few as 10, 20 or 30 caskets out there."

Such scrupulous concern emerged Corps-wide after passage of the 1966 National Historic Preservation Act. Before that law, which required (among other things) that federal agencies document, evaluate and maintain an inventory of historic properties, the Corps had little use for archaeology. It applied the science in a crisis, before land might be flooded behind a dam, for instance.

After the law, and especially after Congress allowed federal agencies to earmark 1% of a project's cost for archaeological work, the Corps entered the field in earnest. Ever since, as Americans gained a sense of their cultural and environmental heritage, the Corps has been in the vanguard of identifying and saving archaeological resources.

The Rincon area behind Prado Dam proved to be an exceptionally fertile-and complex-archaeological dig.

was subject to vertical learning curves that had absolutely nothing to do with archeology. I became a combination contracting officer and budget clerk. The installations would send me MIPRs (Military Interdepartmental Purchase Request = money). I attached budget memos to the MIPRs requesting that the funds be put into the Corps accounting system. Writing scopes of work for each task order and the government estimates for cost of the work was still mostly archeology, but they had to go to the Contracting office to be “negotiated” and awarded to our archeological contractor. Then came the fun of receiving and processing invoices for each task order. Twice each year I had the privilege of visiting the military accounting section to reconcile my records with theirs.

Contract archaeologists screened this muck at Vandenberg AFB’s new missile transport bridge site. Federal law requires military and civilian projects to comply with cultural preservation guidelines.

Watching the military cultural resources program expand proved encouraging. Serving as contracting officer and accountant for up to 25 individual projects each year was - well, let's call it a growth experience. Sometimes I got lucky and actually spent time in the field observing the archeology being done--my tendons appreciated that. Near the end of the process a technical report on the project was submitted, so I got to read about the archeology and even critique the report. Finally, I had to process the invoice for payment and advise Contracting that the task order was complete. Those degrees in anthropology really do come in handy!

By 1998 the number of archeologists assigned as part of the environmental staff at military installations had at least doubled. As a result, the installations began doing more work in-house, and that meant less work for the Corps. By 2001 cultural resources military work for others amounted to only $250,000.

Today, military culture has changed enough to make certain the resources are considered more often than not - and certainly more often than 14 years ago.

While it’s rewarding to see the military increase its awareness of things environmental and cultural, conflicts and hesitancy to implement these laws continue to challenge us today. We environmental folk must remember that our activities are seen by training officers and others as an unnecessary roadblock to their primary duty - training people to conduct warfare. To accomplish that training they are very clear that the larger the space available to maneuver, shoot, fly or land on a beach, the better.

For me, it’s a constant challenge to face new officers every two years or so and train them in the realities of environmental compliance. The first trip I made (1990) to an installation to discuss inventory and Section 106 requirements, and the Corps’ involvement in same, illustrates the shift in acceptance of women as professionals by members of the military. I was accompanied by a senior archeologist from another district who introduced the Los Angeles District archeologist to the installation training staff, and recommend our capabilities to conduct any investigations needed by them.

Accompanied by various officers, we spent two days on base, asking questions, discussing observations and concerns. At the last meeting, while discussing our overall observations and judgments about the scope of the work required to bring the installation into compliance, the colonel in charge refused to address his questions to me until he was specifically advised by the other archeologist that the installation was within my area of expertise—that he could not answer the questions. It took a new commander and three years before we got the work finished, but we did it.

Finding any cultural resources is only Phase 1 of a complex process. If things are found, District archaeologists must evaluate them to determine if they're eligible under standards of the National Register of Historic Places. If they qualify, then the District must develop a mitigation plan. For a prehistoric site, that plan could include a data recovery excavation, where an agreed-to scientific sample of the cultural features (say, a Hohokam cooking pithouse) is physically recovered, excavated, analyzed and catalogued.

Historic material is anything older than 50 years, and Corps archaeologists and contractors already knew the St. John's Canal, originally built in the 1880s along some of ancient Hohokam lines, was on the project site. Starting in 1999, these team members and other experts began walking through several hundred acres of the project site, looking for artifacts. They found enough to recommend the further studies that are now under way.

"I really like to keep my hands dirty. I think that's important because the data are on or in the ground. Unless you're able to recognize and evaluate the resources, you're not doing your job."

Rod McLean, 2003

McLean is temperamentally suited for such work. He wants to be in the field, and volunteers for every project that he can. "I really like to keep my hands dirty," the 12-year Corps employee says. "I think that's important because the data are on or in the ground. Unless you're able to recognize and evaluate the resources, you're not doing your job."

He estimates that he and former District colleague Richard Perry have already spent several months on the Tres Rios project—weeks of background research and the survey itself, months of analyzing the data and then more months writing the report. One problem is that this site, like so many others, contains millions of cultural resources and, as McLean acknowledges, not all of them are important. "It's my job to manage those resources," he says, "not only for the Corps but for the public."

When it was founded in 1868, Phoenix was named for the mythical bird that rises from its own ashes because the town began at the same place an ancient civilization had once thrived. Soon, thanks to the efforts of people like Rod McLean and Tres Rios project manager Mike Ternak, today's Phoenicians will know a lot more about the ashes from which they were born.

Military base contract archaeology has come a long way in 14 years

By Pamela J. Maxwell

Almost 14 years ago to the day, I began my career with the U.S. Army Corps of Engineers Los Angeles District. I was assigned to the "Military Section," and along with about 10 others spent my time assisting various military installations and commands - Army, Navy, Marine Corps, Air Force, National Guard (Army and Air) - with environmental documentation and analyses for their projects. My position within the Environmental Resources Branch was, even then, as a Staff Archeologist.

I say "even then" because at the beginning I knew something about archeology and cultures, but nothing about military cultures or the "cultural resources" barely mentioned in NEPA (what?), or the "historic properties" of the National Historic Preservation Act, Section 106. I found myself in a foreign land unable to speak the language, even if it was not full of acronyms. For me, the Corps was definitely "a learning organization."

By the late 1980s military installations had begun to organize compliance procedures for the various environmental laws and regulations. Some reacted better than others – and still do. While most had environmental specialists and some had biologists, very few had archeologists on post to conduct required Section 106 compliance activities, or to organize the inventories of their property which was also required.

Gradually, relationships were built with the various installation environmental offices, and I was soon answering questions over the phone, conducting small surveys for construction projects and conducting the Section 106 compliance for several installations.

When I began in 1989 there was an open-end contract specifically for three cultural resources projects on military installations. Over the next seven years, the number of military projects soared to 25 a year for several different installations and commands, including surveys, site testing, data recovery, architectural analyses and evaluations, maintenance management plans for historic districts and the beginnings of Historic Properties Management Plans for each installation. The funds provided for these investigations jumped from $200,000 in 1989-90 to over $3 million 10 years later.

Something else happened during that period. I

Bandini-Cota Adobe stood empty and fell into disrepair. It was being used as a homeless encampment. before it was dismantled. Weather has reduced it to just humps in the ground. (See photo on opposite page.)

Centuries ago, Gabrieleno Indians lived above the Santa Ana River. Spanish settlers followed, tilling and ranching on land grants. In the 19th century, a village called Rincon, "the corner," came to life along the Santa Fe Railroad line.

By 1938, the town, now called Prado ("meadow"), had about 200 people, a few stores, post office, school, depot, pottery kilns, a gas station and other structures. Then one of the 20th century's worst floods in southern California swept over Prado and surged through Orange County, killing dozens and leaving devastation in its wake. Prado Dam, built by the Corps in 1941, ensured that the land in front of it all the way to the ocean would become the megapolis it is today.

Behind the dam, near the junction of the 71 and 91 Freeways, was a different story. Rincon/Prado lay fallow for decades, until the dam elevation plan refocused attention on its history. Former and current residents became interested in what once had been there; to find it, they needed help.

They got it from the District. A January 2003 Los Angeles Times article put it this way: "Archaeologists from the U.S. Army Corps of Engineers dug up the buried life of a frontier town, retrieving the everyday objects that gave the place its soul, from ketchup and pepper bottles at the old restaurant on Main Street to fragments of the pottery that Mexican immigrants sold at roadside."

And ever since he came to the District, Dibble has been in the middle of finding the record of these lives, hidden beneath layers of silt. "Every time they dig out here, they call me out," he says.

Dibble and his crews apply the highest-of-tech methods-GPS devices, aerial photography-and the lowest-pushing topsoil aside with shovels (one team of a dozen members did this for a month). One of the main digs uncovered a unique cluster of Mexican pottery kilns, used by potters from the Mexican states of Jalisco and Chihuahua. They arrived in the 1920s and molded vessels from the basin's clay beds, firing them in round brick kilns, then selling them at roadside stands. Archaeologists have discovered three of the kilns, along with fragments of the pots, bowls and sculpted animal figurines. "Even though it's only from the 20th century, it still gives you information about the people, their economy, ethnic groups," Dibble explains. "This all adds to the written history of the area."

Dibble "just fell into" archaeology, he says. For a while at Cal State Long Beach University, he was geology major, then switched to anthropology. After graduation, he didn't exactly rush into the field, spending five years as a bartender at Moonraker's in Irvine. He worked the day shift Monday-Friday, while pursuing a master's degree, and enjoyed the experience. "There were regular customers, it was a good area," he remembers. "I used to tell them my problems, and they'd tell me jokes."

After stints with various area consulting firms, Dibble joined the Corps in 1987. But his bartending days had something in common with archaeology: "Both are kind of anthropological," he says. "In one you're dealing with stoned people."

Under Dibble's guidance, the District has generated hundreds of archaeological studies. One, "Ranching, Rails, and Clay: The Development and Demise of the Town of Rincon/Prado," is a 238-page analysis of the prehistoric and historic records of the area.

"Senior Archaeologist D. Steven Dibble spearheaded the project for USACE and provided invaluable assistance in the form of maps, reports, resources and his special brand of expertise," wrote the report's author, Matthew A. Sterner of Statistical Research Inc., Tucson, Ariz. "Steve's interest and genuine excitement for the cultural resources to be found in the Prado Basin was contagious from the first moment I met him. Today, I share Steve's passion for the area and feel my heart race slightly when presented with the opportunity to visit or work in the basin."

Dibble turned to what once had been Rincon/Prado. As he moved briskly through tall grass into a forest of eucalyptus trees, he paused, framing his hands into a square. "There's the town," he says, literally looking back in time. "I get real philosophical visualizing it. Imagine the people out here buried-they're always going to be this way, and people today won't forget about them or desecrate them in any way. That's what gets me excited."

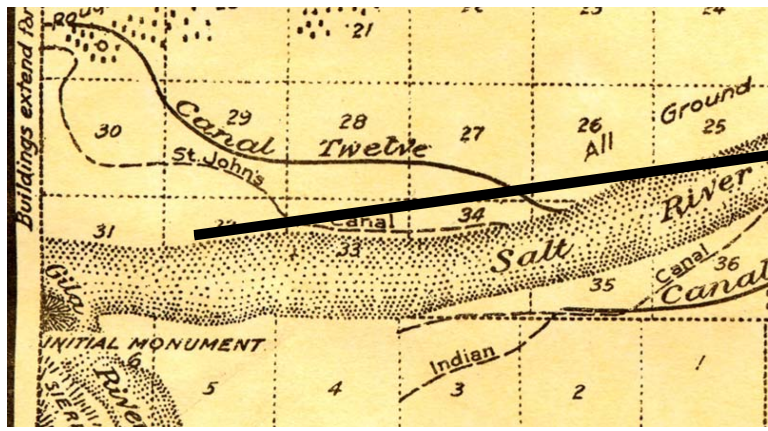
The 'Vanished Ones' reappear at Tres Rios Project, thanks to McLean's elbow grease and space-age tools

By Mike Tharp

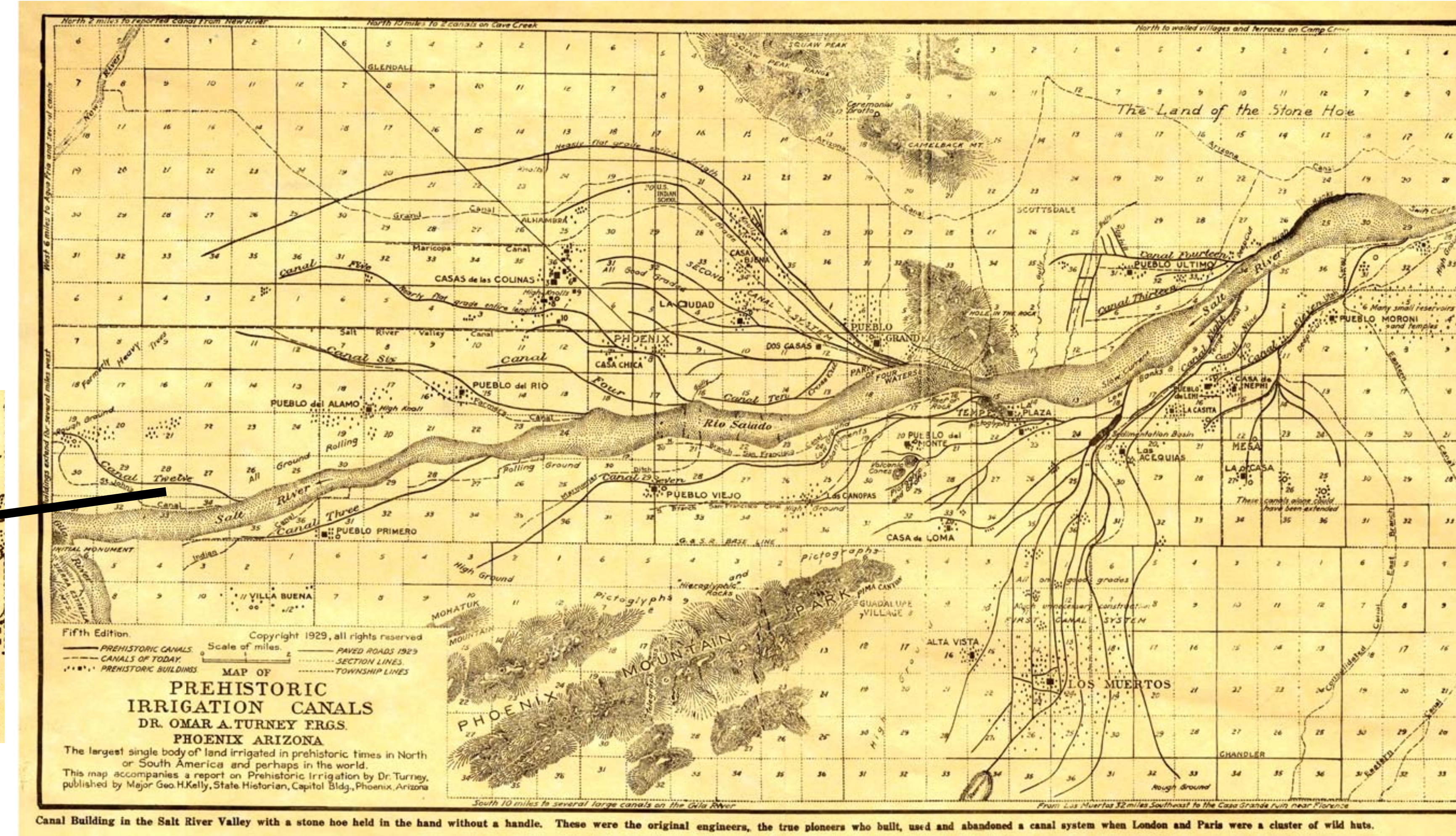
Rod McLean will use 21st century technology to search for 11th century Native Americans.

The veteran District archaeologist plans to apply radar imaging from satellites orbiting 22,500 miles above Arizona to discover any traces of ancient Hohokam Indians. The spycams will look down in space and back in time as part of the Tres Rios archaeological survey. Tres Rios, where the Gila, Salt and Agua Fria Rivers meet, is the Corps' innovative habitat restoration/flood control project west of Phoenix; the National Historic Preservation Act requires such a survey before construction can begin.

There's still more than a year left in the District's timetable for the project, but several intriguing archaeological clues already have emerged from the dusty alluvial plain. "We've got evidence for over 1,000 years of agriculture in our project area," McLean says. "That's part of what we're going to do in our testing—to see if canals are out there. The Hohokam constructed several hundred miles of canal system in the Phoenix Basin."



Project Area



Humans have lived in the Southwest for over 10,000 years, but the Hohokam are thought to have arrived at the river junction around 300 B.C. from Mesoamerica. Related to Mayans and Aztecs, they introduced over the centuries farming and irrigation methods that let them survive for a millennium or more, agricultural techniques widely imitated by other tribes. Around 1500 A.D., the Hohokam dispersed because of climatic changes. Their name, aptly given them much later by the Akimel O'odham (Pima) Indians, means "vanished ones."

Rod McLean aligns past and present.

For decades, the site has attracted archaeologists the way rumors of silver and gold drew miners to the nearby foothills in the 1850s. The attraction was summarized by archaeologist William E. Doolittle: "…the entire Salt River Valley for the period extending from AD 0 to 1450 was a dynamic landscape of canals of various sizes and locations undergoing constant renovation and relocation…the valley can be best characterized in terms of the irrigated landscape as a constantly changing mosaic." McLean suggests that the flood plain contains "agricultural hamlets, canal maintenance camps and perhaps a 1,000-year-old canal."

And perhaps surprisingly, despite years of scientific studies and scores of scholarly reports on the Tres Rios heritage, much remains to do on the archaeological front. "This project is exciting," McLean says in his understated way, "because there are resources there that could advance our knowledge of the area. It all adds up to a fairly interesting resource area that, by the way, hasn't been studied a great deal."

In other words, the District team can, literally, break new ground.

To do that, the Corps has enlisted, among others, one of the nation's foremost geoarchaeologists, Michael Waters, a professor at Texas A & M University. Waters recently shook the scientific establishment as co-author of a report posing new theories about early American migration. For some time, archaeologists have surmised that the first Americans came here on a land bridge across the Bering Strait. Waters and his co-author learned through radioactive carbon dating that a settlement in northeastern Russia is 4,000 younger than previously thought, "making it highly unlikely that people could have traversed the thousands of miles from Siberia in such a short period," reported the L.A. Times.

With Tucson-based Statistical Research Inc., Waters and District archaeologists will use geoarchaeological and geomorphic approaches in their research. That means they will study landforms and the placement of archaeology within those landforms "to investigate the possibility that there might be buried village sites within the flood plain," explains McLean, "villages previously unknown to researchers in the Phoenix Basin."

Earlier archaeological studies of the basin "said there wasn't a lot of early Archaic Period (older than 1,000 years ago) presence in the Phoenix area," he continues. "Based on our research, we are helping change that perspective. We are encountering early occupations buried in the flood plain. We are going to look because no one has looked there before."

When field work resumes in September, investigators will deploy techniques ranging from backhoes, shovels and sifting clay and dirt through thin-mesh screens to perhaps ground penetrating radar, proton magnetometers and instruments that measure the soil's electrical conductivity and resistivity. They hope the satellites will help by bouncing radar waves from outer space to subsurface layers beneath the project site. That technique helped archaeologists discover ancient trails of the spice trade in Saudi Arabia and Oman. "I wonder whether the radar imaging can find within the flood plain 1,000-year-old Hohokam canals," says McLean. "It'll be exciting if we can—we don't know yet."

Besides scientists and local stakeholding government agencies, the District also has consulted closely with two tribes in the neighborhood, the Salt River Pima-Maricopa Community in the north and the Gila River Indian Community in the south. McLean has made sure tribal representatives have visited the site itself. Their reaction? "Intense interest," he says.

"This is a two-way street. As the cultural group that's being studied, they provide information on their culture. In turn, we provide information to them on our archaeological search." The Indians, for instance, will describe how they've used the land for generations; the Corps will describe how it can scientifically date site material with carbon-14 dating.